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The Effects Of Looping On Student Achievement And Self-efficacy Of Exceptional Education Students

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THE EFFECTS OF LOOPING ON STUDENT ACHIEVEMENT AND SELF-EFFICACY OF EXCEPTIONAL EDUCATION STUDENTS

by

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ABSTRACT

The focus of the current study was to examine the effects of looping on academic achievement and self-efficacy for Exceptional Student Education (ESE) students. The basic design of this study was causal comparative, or ex post facto, because the researcher was seeking to identify a difference in achievement based on developmental scale scores between the two groups of looping and non-looping students with ESE classifications. A retrospective causal comparative study was chosen because the researcher began with a potential cause, looping, and studied the potential effects on achievement and self-efficacy. The hypotheses were that the experimental group would outperform the control group on student achievement measures in reading and math as a result of participation in the looping classroom. In addition, it was hypothesized that the experimental group would outperform the control group on measures of self-efficacy and that there would be a correlation between reading and math developmental scale scores and self-efficacy scores.

Results indicated no statistically significant difference between the experimental and control groups on measures of achievement in reading and math. Additionally, no statistically significant difference was found between the groups on measures of self-efficacy. However, moderate and statistically significant relationships were found between self-efficacy scores and reading and math development, respectively. The findings of this study indicate further research may be warranted to explore the benefits of looping in providing a more positive environment for students' emotional growth.

This dissertation is dedicated to the educators who have had a profound effect on my life but are no longer with me to celebrate this momentous occasion: Peggy, Jane, Ann, Janie, and, most importantly, my father, Solly Thomas.

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TABLE OF CONTENTS

LIST OF TABLES

CHAPTER ONE: INTRODUCTION

As the needs of our society change, so do the needs of our educational system. One of the methods for addressing the changing needs in education is looping. Looping, defined by Forsten, Grant, and Richardson (1999), is an instructional design in which students progress to the next grade level with the same teacher(s) for two or more years. This practice has been employed by schools throughout the United States in their effort to meet the needs of a student population with special needs, especially those students with disabilities. Supporters of looping suggest that it enables educators to better identify children's needs and offers a more well-organized way of meeting those needs within the structure of the general education classroom (Brugger, 2003; McNamara, 2003; Roberts, 2003; Snyder, 2003).

Lipsky and Gartner (1998) noted in order to improve education for children with disabilities, special education cannot be addressed by itself; rather, changing the nature and practice of education in general must be addressed in the restructuring of education. According to Lipsky and Gartner, the reauthorization of the Individuals with Disabilities Education Act (IDEA) in 1997 reflected this need and drove the issue of educational restructuring further. Moreover, Lipsky and Gartner stated the reauthorization of IDEA emphasized two major principles: the education of students with disabilities should produce outcomes similar to those expected for students in general education and students with disabilities should be educated with their non-disabled peers. Lipsky and Gartner contended that the reauthorization of this act asserted that the education of students with disabilities would be more effective if there were high expectations for students and assurance of success in the general curriculum. They believed the primary

purpose of the act was to go beyond access to schools and ensure that each child received an education that yielded successful educational results.

Under the new terms of IDEA, now referred to as the Individuals with Disabilities Education Improvement Act (IDEIA) of 2004 PL-108-446, provisions have been made to operationally define the factors that make up a highly qualified teacher. Additionally, IDEIA addresses what constitutes an appropriate individual educational plan and specific eligibility requirements for the proper identification of students with disabilities.

In order address the needs of students with disabilities, educators must be willing to operationally define the needs of students. Albert Bandura operationally defined students' needs (1994, 1995, and 1997). He stated children's needs and their ability to achieve academically were based on self-efficacy beliefs. Bandura's (1995) research supported four needs concerning self-efficacy that ensured children's success within the educational environment. Those needs were: (a.) mastery experiences; (b.) vicarious experiences; (c.) social persuasion; and, (d.) physiological and emotional states.

It was the intent of this study to examine the potential of the looping classroom for improving the academic performance and self-efficacy of students with disabilities within a public school general education classroom. The review of the literature examined the atmosphere of nurturing, efficient use of instructional time, and individualized instruction present in the looping classroom. In addition, the literature depicts the looping elements that support Bandura's theory of self-efficacy and the regulation of human functioning in a classroom reflective of the looping design. Moreover, it was the intent of this study to examine the potential of the looping

classroom in encouraging self-efficacy behaviors necessary for the academic and social success of all children.

Problem/Purpose

In an effort to increase student achievement and provide for the differing needs of children in the general education classroom, many schools are examining school organization strategies. Such examination of strategies has led many school districts to reflect on the way in which students, particularly those with disabilities, are served within the regular classroom. Looping is one strategy employed by school districts that appears to provide extended learning time, along with increased student teacher contact, that is essential to the learning process (Roberts, 2003).

Roberts (2003) stated students who loop outperformed students in traditional classrooms in reading achievement, independent reading skills, and positive attitudes towards school. He noted looping provided students with extended learning time while providing teachers and parents with the opportunity to gain a greater understanding of students' strengths and weaknesses, individualize instruction, and support student learning.

Research exists examining looping as an instructional practice for improving student achievement scores (Brugger, 2003; Roberts, 2003; Snyder, 2003). However, this research focused on the effects of looping on student achievement with general education children. The problem is a scarcity of empirical research on the effects of looping on student achievement with exceptional education students in the general education classroom.

The proposed study examined the overall question: what are the effects of looping on student achievement, as measured by a statewide assessment system, for elementary aged students identified under the Individuals with Disabilities Education Improvement Act (IDEIA, 2004) as having a disabling condition, and who are included in the general education classroom. Specifically, this study examined the effects of looping on reading and math achievement of elementary aged Exceptional Student Education (ESE) students identified with disabilities under IDEIA, and included in general education classrooms. The following research questions related to looping and self-efficacy were posed:

1. Is there a statistically significant difference in reading achievement, as measured by Florida Comprehensive Assessment Test (FCAT) developmental scale scores, between students with ESE classifications who loop and those who do not loop?
2. Is there a statistically significant difference in math achievement, as measured by FCAT developmental scale scores, between students with ESE classifications who loop and those who do not loop?
3. Is there a statistically significant difference in the self-efficacy of students with ESE classifications who loop and those who do not loop, as measured by the *Children's Self-Efficacy Scales*?
4. Is there a statistically significant correlation between reading developmental scale scores and self-efficacy scores, as measured by the FCAT and the *Children's Self-Efficacy Scales*?

5. Is there a statistically significant correlation between math developmental scale scores and self-efficacy scores, as measured by the FCAT and the *Children's Self-Efficacy Scales*?

These research questions led to the following research hypotheses:

1. Students with ESE classifications who loop will score differently than students with ESE classifications who do not loop on a standardized state measure of reading achievement.
2. Students with ESE classifications who loop will score differently than students with ESE classifications who do not loop on a standardized state measure of math achievement.
3. Students with ESE classifications who loop will score differently than students with ESE classifications who do not loop on a standardized measure of self-efficacy.
4. There will be a correlation between reading developmental scale scores and self-efficacy scores.
5. There will be a correlation between math developmental scale scores and self-efficacy scores.

Definitions

Several terms or constructs necessitate clarification: looping, FCAT, *Sunshine State Standards*, developmental scale score, Exceptional Student Education, and self-efficacy.

1. Looping: Looping, defined by Forsten, Grant, and Richardson (1999) is an organizational structure in which students progress to the next grade level with the same teacher(s) for two or more years. It is also referred to as multi-year

teaching, multi-year instruction, multi-year assignment, persistence grouping, teacher-student progression, teacher rotation, family-style learning, two-cycle teaching, and student-teacher progression.

2. FCAT: FCAT stands for the Florida Comprehensive Assessment Test. The primary purpose of the FCAT is to assess student achievement of the knowledge and skills represented in the *Sunshine State Standards (SSS)* in Reading, Mathematics, Writing, and Science. The *SSS* portion of the FCAT is described as a criterion referenced test; a portion of the FCAT is also norm referenced (i.e., the Stanford Achievement Test, Version 10).
3. *Sunshine State Standards (SSS): SSS* are curriculum and expectations for student achievement developed by the Florida State Board of Education in 1996.
4. Developmental scale score: Developmental scale scores are scores on the FCAT; they were developed to measure the learning gains of students as they move from one grade level to the next.
5. Exceptional Student Education (ESE): Exceptional Student Education describes the local education department that serves students diagnosed with disabilities under the Individuals with Disabilities Education Improvement Act (IDEIA, 2004). In the state of Florida, children who are identified as gifted and talented are included as part of the ESE population. Exceptional Student Education is also referred to as special education.
6. Self-efficacy: Self- efficacy is defined by Bandura (1997) as the belief in one's personal capabilities to produce given attainments.

CHAPTER TWO: REVIEW OF THE LITERATURE

Background and Significance

The review of the literature was organized to address empirical studies relevant to looping and the effects of looping on student achievement. In addition, this review focused on Exceptional Education students, inclusion, and achievement. Bandura's theory of self-efficacy was also addressed along with what the literature depicted regarding self-efficacy and its relationship with student achievement. Finally, the review spoke to and connected the issues of looping, self-efficacy, inclusion, and student achievement.

Looping

Newberg (1995) has stated that teachers traditionally define themselves narrowly, elementary teachers by grade level and secondary teachers by the subject area taught. Each year, teachers encounter a new group of students, work with them to the best of their ability, and then send them to the next grade level. Newberg likens this approach to one running a relay race; the baton is passed on to the next runner with no one running the full race. The advantage noted in this style of school organization is that students are provided with a variety of teaching personalities and styles of teaching. The system Newberg described is one that he believes is recent. Before the 20th century, it was common for students to stay with the same teacher for several years, throughout multiple grades and subjects because schools were a lot smaller and teachers fewer.

In a 1913 memo from the U. S. Department of the Interior, before there was a federal Department of Education, officials endorsed the practice of teachers staying with students when they posed the question:

> Shall teachers in graded schools be advanced from grade to grade with their pupils through a series of two, three, four or more years so that they may come to know the children they teach and be able to build the work of the latter years on that of the earlier years, or shall teachers be required to remain year after year in the same grade while the children, promoted from grade to grade, are taught by a different teacher every year (Grant, Richardson, & Forsten, 2000, p. 31)?

As the number of children attending schools increased, schools began to organize around the model of the industrial age. Newberg (1995) referred to classrooms of this era as "stamped out into egg crate units, with students moving along on conveyor belts from one teacher to the next" (p. 714). He believed that the long-term commitment teachers had made to students was replaced by "technocratic efficiency".

However, despite the ascendance of the industrial age model, the tradition of staying with a class of students over time exists today in the over 650 Waldorf schools located in 35 countries worldwide. The German philosopher, Rudolf Steiner, founded Waldorf schools in 1919 as a means to educate the children of workers in the Waldorf Cigarette Factory of Stuttgart, Germany. Steiner believed that children must be guided and mentored by one individual through the early education years (Little & Little, 2001; Grant, Johnson, & Richardson, 1996). In a Waldorf school, a teacher starts with a class of students in the first grade and stays with this class through the eighth grade. Three important features of the Waldorf schools are cited by Newberg (1995):

(a) Waldorf education was based on a developmental approach that addressed the needs of the growing child and maturing adolescent; (b) teachers educated the whole child, the heart and hands as well as the head; and, (c) Waldorf schools were committed to developing free human beings who were able to be themselves to impart purpose and direction to their lives (p. 714).

Little and Little (2001) depicted Waldorf Schools as a forerunner to looping. Additionally, they likened looping to a return to an earlier teaching practice, the one room schoolhouse. Looping was described as a practice that promoted a sense of unity and fostered a feeling of community. Little and Little portrayed looping as having the necessary elements in its basic design that enabled educators to meet the individual needs of students and improve student learning. They asserted that it promoted pride in belonging, celebrated individual differences and strengths, and fostered an appreciation for building strong ties between students and teachers. The concept of belonging was cited as an issue at the heart of some of the recent tragedies occurring in schools nationwide, such as the shootings in Columbine and North Dakota. Little and Little contended when students felt nurtured in an on-going student-teacher relationship and developed a close bond with the teacher, peers and schools, they would be less likely to display violent behaviors in school.

The practice of looping has also been described as practical in that it eliminated time lost at the beginning of each year when the new teacher must take time to get to know students' diverse learning levels and differing needs. Looping allowed teachers to pick up where they left off when the school year resumed and allowed teachers to connect with students and parents in a more personal and continuous basis (Little &

Little, 2001). Grant, Johnson, and Richardson (1996) supported these benefits along with stating that the "relationship is what gives looping its power" (p. 16). It was stated that given time, a teacher can: (a) develop a deeper understanding of students' learning styles and needs, both academic and emotional; (b) better understand students' family dynamics and the parents' needs and expectations regarding their children's education; (c) approach the curriculum in more depth, knowing that there is more time to help students make connections in their learning; and, (d) understand the requirements of the teachers coming before and after, and develop a more all-encompassing view of the educational process through which her students will pass.

Effects of Looping

The effects of looping have been documented by many studies, some empirically researched and others by testimonial. Grant, Richardson, and Forsten noted the benefits of looping as having "potential" (2000, p. 31) because the benefits were realized by what the teacher does with students, not from the structure itself. Research conducted in Florida cited by the authors' revealed positive outcomes of looping. It was reported that 70% of teachers reported teaching the same students for three years in a row enabled them to use more positive approaches to classroom management. In addition, 84 % of the teachers reported more positive relationships with parents.

Also cited by Grant, Richardson, and Forsten (2000) was a seven year study on looping conducted in Attleboro, Massachusetts. Students in this district looped throughout 1st through 8th grades. This study revealed student attendance in grades two through eight increased from 92% average daily attendance to 97%; also, retention rates decreased by more than 43% in those same grades. In addition, discipline and

suspensions, especially at the middle school level, declined significantly; and, special education referrals decreased by more than 55%.

In addition to the benefits of looping as cited by Grant, Richardson, and Forsten (2000), Elliott and Capp (2003) have noted that looping provided children from all economic levels of society an opportunity to develop more successfully than in a traditional classroom. Elliott and Capp cited surveyed teachers' views with regard to two-year looping as a way to accelerate students in the areas of language arts and math along with providing more time to cover content areas in enhanced ways. Other benefits cited by Elliott and Capp (2003) were the ability to plan academically over a longer period of time and establish grade-level content areas with the opportunity to pay more attention to retention of learning and extension of skills. According to these authors, struggling students were identified earlier and teachers noted there was more time to correct deficit areas.

Elliott and Capp (2003) also conducted a survey of parents to elicit ratings of the effectiveness of looping. Parents were given a survey and asked to rate answers on a Likert scale ranging from one to six, with one being "no difference" and six being "maximum effectiveness" (p. 36). Of the 30 parents randomly sampled, all 30 surveys were returned and the mean rating given by parents was reported as 5.783. Elliott and Capp (2003) reported parents completing the survey overwhelmingly responded that the looping design was maximally effective with regard to learning outcomes. The results of this study should be viewed with caution as parent survey responses were not compared to responses from parents of students who did not loop. Conducting such a comparison analysis may have yielded different results.

In a study conducted by Nichols and Nichols (2002), 455 parents of looping and non-looping students were surveyed to obtain perceptions of the educational environment. When the results were analyzed, the researchers found looping parent responses to be more positive on variables such as parent and student attitudes toward the school environment and motivation. Additionally, they found more positive perceptions among low-income and single parent families than families with higher incomes and traditional two-parent families. This study on looping supported the findings of Elliott and Capp (2003) and Grant, Richardson, and Forsten (2000) in that it supported the idea that looping was associated with more positive parent/student attitudes towards the school environment and motivation.

Moreover, McNamara (2003) documented student attitudinal factors relating to looping. In a study conducted with 198 elementary students in grades two through four and comparing looping and non-looping students, results revealed more positive attitudes on scales measuring Motivation for Schooling, Academic Self-Concept, Sense of Control, and Student's Instructional Mastery for grades two and four. Despite significant differences between looping and non-looping groups in grades two and four, there were no statistically significant differences found between looping and non-looping students at the third grade level. McNamara attributed this result to "an increased familiarity that bred negative sibling-like behaviors and other interpersonal conflicts" (2003, p. 48).

Effects of Looping on Student Achievement

There were a limited number of studies conducted on the effects of looping on student achievement. One study, conducted by Roberts (2003), sought to study the effects of looping to determine how extended learning time gained through the looping

design affected third graders' achievement in reading, skills as independent learners, and attitudes towards school as compared to students in traditional classrooms. Snowball sampling was conducted to identify schools willing to participate in the study. From the pool of schools from various counties that responded, a sample of two hundred second and third graders were selected to participate in this study.

Roberts' results revealed looping students outperformed students in traditional classrooms in areas of reading achievement, independent reading skills, and positive attitudes towards school. He attributed this effect to the extended learning time gained through the looping design. Additionally, he stated that this design provided teachers with the opportunity to develop and use strong relationships with students and parents to bring about a better understanding of the students' strengths and weaknesses, individualize instruction, and support students' learning (Roberts, 2003).

Brugger (2003) also explored the relationship between two-year looping and reading as measured by one hundred sixty first and second graders' Gates-MacGinitie Reading Test scores. Reading tests scores were analyzed to determine the effects of looping with specific subgroups of the population. Brugger studied subgroups defined by gender, socio-economic background, and proportion of students testing in the upper and lower quartiles of a nationally normed standardized reading test. Brugger's results revealed no significant effect of looping on the reading achievement of second grade students.

In an exploratory study to define factors related to looping and to investigate a relationship between the educational learning theories of constructivism, learning community, and social capital, Snyder (2003) utilized semi-structured interviews and

standardized measures to examine student progress in looping, multiage and traditional classroom settings. Results supported the notion that there was a relationship between the educational learning theories as evidenced by the contextual analysis of the specific guiding research questions. In addition, the study revealed no statistical significance on standardized test scores between students who looped and those in traditional classrooms.

Exceptional Education Students, Inclusion, and Achievement

Manset and Semmel (1997) compared, through the review of the research literature, eight different inclusion models for elementary aged students with disabilities. In order for studies to be included in this review, specific criteria had to be met. Specifically, the studies had to have been published between January 1984 and July 1994, include objective measures of academic outcomes, involve school wide interventions, and specify as a primary intent the full-time mainstreaming of students with mild disabilities (Manset and Semmel 1997). Program characteristics such as curricular innovations and student and staff reorganization were reviewed and academic outcomes were examined. Manset and Semmel discovered that inclusive programs were effective for some but not all students with mild disabilities. Moreover, the question of whether inclusive programs were effective for this population of students was inconclusive. While the evidence presented in this study revealed some effectiveness for inclusion of students with disabilities in the mainstream, there was no specific model of inclusion proven to be best.

Several studies have been conducted examining the effects of inclusion on the achievement of special education students. In a review of the outcomes of three different inclusion programs, Zigmond and Jenkins (1995) discovered mixed results. Their results indicated only half of the students with disabilities in the general education classroom

made meaningful gains in reading achievement, with a small portion making only satisfactory gains. In addition, around 40% made gains that were considered less than average. Thus, with approximately 50% of the students failing to show a significant increase in achievement, Zigmond and Jenkins were unable to conclude that satisfactory outcomes could be achieved in the general education setting.

Martson (1996) examined the academic progress of students with learning disabilities in three different instructional settings in order to determine which facilitated the greatest academic achievement. The three settings were: an inclusion model that provided students instruction in a general education classroom from a regular and special education teacher, a pull-out model whereby students received instruction exclusively from a special education teacher in a resource room, and, a combination of the two models, instruction provided to students in an inclusion classroom with additional periodic instruction in the resource room. Assessment of the reading achievement of individual children with learning disabilities indicated that the combined service model produced greater learning gains in reading than either the inclusion or resource room only model.

In a recent study to determine the impact of inclusion and pull out services on special education students' reading progress and attitude and perception, Palombo (2004) examined 56 students, 24 identified as special education and 32 as general education, over a four year period in order to measure academic achievement as well as students' attitudes and perceptions regarding inclusion services. Results were varied; with regards to academic achievement, she determined both special education and general education students benefited from the inclusion setting. However, there was no significant

difference in academic growth in achievement when comparing the inclusive setting versus pull out services. Results did indicate students' perceptions and attitudes towards the inclusive setting were positive. Because of positive students' perceptions and attitudes, results indicated continued inclusion of special education students in the general education setting was warranted.

Self-Efficacy

Bandura (1997) affirmed that people try to exercise control over their lives in order to realize their goals. He stated there would be stronger incentive for people to act if they thought control was possible. Bandura described perceived self-efficacy, the belief in one's personal capabilities to produce given attainments, as regulating human functioning in four ways. The first way in which it is regulated is cognitively; he believed people with high self-efficacy were more likely to aspire, set challenges for themselves, and commit to meeting those challenges. Motivation was the second aspect described; Bandura asserted people motivated themselves by forming beliefs about what they can do, setting goals, and planning a course of action. Motivation was described as stronger if there was belief of goal attainment and adjustment of goals were based on progress. Mood and affect were the final two ways in which self-efficacy is thought to regulate human functioning (Bandura, 1997). The degree of stress or depression a person experienced depended largely on how well they see themselves as able to cope. Bandura believed that efficacy beliefs regulated emotional states in ways that enabled people to handle stressful events or challenges in life.

Bandura also asserted people with high self-efficacy approached difficult tasks as challenges to be mastered rather than threats. He stated a person concentrated on the task

and not themselves. If an individual did not have high self-efficacy, Bandura recommended treatment that enabled a person to take control over his life and start a "process of self regulative change guided by a resilient sense of personal efficacy" (1997,p. 5). The four ways he described to accomplish this were:

1. Experience of success or mastery in overcoming obstacles: This type of success was defined as one that made people stronger from perseverance through difficulties and setbacks. He maintained people experiencing easy successes were discouraged by failures.
2. Social Modeling: Viewing others, similar to oneself, succeeding enabled people to believe they had the capacity to do the same. The impact of social modeling was influenced by the perception of being similar to the model; the greater the similarity, the more persuasive the success of the model is.
3. Social Persuasion: People who were persuaded to believe in themselves exerted more effort and increased their chances for success. Bandura noted that effective social persuaders tried to arrange things for others in ways that brought success and avoided placing people in situations prematurely where they were likely to fail.
4. Reducing stress and depression: By building physical strength and learning how to interpret physical sensations of stress and depression, people began to rely on their emotional and physical states to judge their capabilities. In order to change efficacy beliefs, physical status must be enhanced and stress reduced (p. 5).

Self-Efficacy and Student Achievement

Bandura (1994) noted that the school environment is the primary setting for the promotion and social verification of cognitive competencies during the child's most formative years of development. He declared school the place where children develop cognitive competencies and acquire the knowledge and problem-solving skills necessary for participation in society. School is the setting where knowledge and thinking skills are tested, evaluated, and socially compared. As cognitive skills are mastered, intellectual efficacy is developed. Factors such as peer modeling of cognitive skills, social comparison with the performance of others, motivational enhancement through goals and positive incentives, and teachers' interpretations of success and failure affected a child's judgment of intellectual efficacy. Bandura claimed the task of creating a learning environment that is conducive to the development of these cognitive skills is the responsibility of the teacher. Such a learning environment encouraged students' beliefs in their ability to master academic activities affecting aspirations, level of interest in academic activities, and academic accomplishments.

Bandura (1994) stated classroom structures affected the development of intellectual self-efficacy, largely because of the emphasis placed on social comparison versus self-comparison appraisal. A personalized classroom setting with individualized instruction suited to student knowledge and skills enabled children to expand their competencies and provided for less social comparison. He recommended cooperative learning structures whereby students work together and help one another; he believed this promotes positive self-evaluations of capability and higher academic attainment.

Looping, Self-Efficacy, Inclusion, and Student Achievement

Based on the studies presented in this review, it is reasonable to conclude that the effects of inclusion on academic outcomes for special education students were inconsistent. It is also reasonable to conclude that the body of literature pertaining to looping reflected an atmosphere of nurturing, safety, belonging, more efficient use of instructional time, and more individualized instruction. These elements supported Bandura's theory of self-efficacy and the regulation of human functioning in a classroom atmosphere reflective of the looping design. While some studies were conducted relating student achievement to the looping design, results did not consistently show looping had a positive effect on achievement. One could conclude looping was effective because it encouraged self-efficacy behaviors; however, there were no direct measures of self-efficacy and looping. Moreover, there was no research connecting looping effects on the self-efficacy of ESE children.

Additionally, research existed regarding the achievement of general education students; however, there were limited studies conducted on looping and student achievement, with only one, Snyder (2003), connected to a theory of learning. Furthermore, research was limited regarding the achievement of students with ESE classifications who loop. This study addresses the gap in the literature concerning looping and its effects on student achievement for students with ESE classifications; additionally, it connects Bandura's theory of self-efficacy with the elements and design of the looping classroom.

CHAPTER THREE: METHODOLOGY

Subjects

The target population for this study was U.S. elementary students identified under IDEIA as requiring Exceptional Students Education (ESE) services and included in the general education classroom. The accessible population for this study was elementary aged students from a southwestern Florida public school district. This district is comprised of 23 elementary schools (PreK-5), 8 middle schools (6-8), and 5 high schools (9-12); the total school population at the time of the study was 40,145 students. The racial make-up of the student body for the school district was comprised of approximately 49% White, 6% Black, 36% Hispanic, 4% Haitian, 1% Mixed, 0.9% Asian, and 0.4% Indian. Approximately 44% of the school districts' student population was categorized as economically needy and qualified for the free and reduced cost lunch program. The proportion of the ESE population for this school district was reported as 19%, comprised of 15% Disabled and 4% Gifted and Talented.

Since the purpose of this study was to examine the effects of looping on elementary students' achievement and self-efficacy, the students selected for the experimental group in this study were a purposively chosen convenience sample comprised of those students with ESE classifications participating in their second year of an elementary general education looping classroom. First, four schools were selected because they had classrooms that used a looping design and because the economic and ethnic demographics of the four provided sufficient variety to be adequately representative of the accessible population. The four schools selected for the

experimental group in this study are described in Table 1; they are referred to as "Elementary A", "Elementary B", "Elementary C", and "Elementary D". Thus, the experimental group for the study is essentially a purposively-chosen convenience sample comprised of those students with ESE classifications participating in their second year of an elementary general education looping classroom.

Table 1

Comparison of Elementary Schools in the Experimental Group

	Elementary A	Elementary B	Elementary C	Elementary D
School Size	749	1035	898	727
Economically Needy*	77	28	49	23
ESE-All*	16	21	16	17
ESE-Gifted*	0.4	2	2	5
Female*	45	47	48	47
Language/English*	50	79	60	82
Limited English Proficient*	17	8	21	6
Migrant*	4	2	1	5
Black*	11	4	7	1
Haitian*	14	2	1	0.14
Hispanic*	41	24	40	17
White*	28	67	45	79

Note. * In percent

The student population at Elementary A was classified as 77% economically needy (eligible for free and reduced cost lunch) and 16% of the student population qualified for ESE services. At Elementary B, 28% of the student population was economically needy and 21% qualified for ESE services. Forty-nine percent of Elementary C's student population was qualified for free and reduced cost lunch and 16% qualified for ESE services while 23% of Elementary D's student population was qualified for free and reduced cost lunch and 17% qualified for ESE services. Further, the percentage of the student population with limited English proficiency and the racial make up of each of these schools were also quite variable. Sampling students from these school populations thus provided results that were more generalizable to the target population because they represented both ends of the socio economic spectrum present in this school district and other school districts throughout Florida and the nation. In summary, those elementary students with ESE classifications enrolled in the general education looping classrooms at Elementary A, B, C, and D made up the experimental group for this study; more detailed demographics for these schools are provided in Table 1. These students were fourth and fifth graders participating in their second year of looping.

The control group was comprised of elementary students with ESE classifications, in grades four and five, enrolled in a general education classroom but not participating in looping. The eight schools selected for the control group in this study are described in Table 2; they are referred to as "Elementary E", "Elementary F", "Elementary G", "Elementary H", "Elementary I", "Elementary J", "Elementary K" and "Elementary L". The percentage of the student population classified as economically needy (qualifying for

free and reduced cost lunch) ranged from 16% to 84% and the proportion of students qualifying for ESE services ranged from 9% to 21%. Furthermore, the percentage of the each student population with limited English proficiency and the racial make up of each control group school ere also quite variable, reflective of both ends of the spectrum. The student body demographics for the control group schools are given in more detail in Table 2. As with the students who made up the experimental group, the control group can most aptly be described as a purposively-selected sample of convenience. Again, given that the central purpose of the study was to study the comparative effects of looping as an organizational strategy, this type of sampling is appropriate.

In order to perform the study, using experimental and control groups that were as similar as possible (with the exception of the variable, looping) matching of the two groups was conducted on three levels. First, experimental and control group schools were selected that had similar percentages of students identified as economically needy and eligible for ESE services. Second, teachers of students with ESE classifications in the control group were matched, to the extent possible, with teachers in the looping classroom in terms of years experience teaching, degree held, and levels of teacher self-efficacy. Third, students in the experimental and control groups were matched according to age, grade, IQ, ESE classification, and whether they qualified for free and reduced cost lunch. In the final analysis, the experimental group comprised 29 classified as students with ESE classifications while the control group included 30 students similarly classified.

Table 2

Comparison of Elementary Schools in the Control Group

	Total Student Population	Economically Needy*	ESE-All*	ESE-Gifted*	Female*	Language/ English*	Limited English Proficient*	Migrant*	Black*	Haitian*	Hispanic*	White*
Elementary E	788	29	18	2	47	78	9	.4	2	.1	33	60
Elementary F	894	84	18	.1	49	31	28	3	16	11	53	13
Elementary G	1056	79	20	.6	47	40	15	1	12	7	57	19
Elementary H	566	25	21	15	45	84	5	1	5	8	12	69
Elementary I	1144	16	14	2	47	89	4	.2	2	0	14	78
Elementary J	807	68	20	.1	46	55	12	4	10	7	44	34
Elementary K	935	44	15	3	49	72	15	4	2	1	29	62
Elementary L	752	17	9	11	51	80	6	.4	1	1	16	78

Note. * In percent

Instruments

Florida Comprehensive Assessment Test

The Florida Comprehensive Assessment Test (FCAT) was used as the instrument to measure achievement in this study. In 1996, the Florida education community identified a core body of knowledge and skills they believed all students should have attained at each stage of schooling. This body of knowledge and skills is represented in Florida's *Sunshine State Standards* (*SSS*) and encompasses seven content areas: language arts, mathematics, science, social studies, health and physical education, foreign language, and the arts. The *Sunshine State Standards* are divided into four grade level clusters, PreK-2, 3-5, 6-8, and 9-12, which are further divided into benchmarks measuring what students should know and be able to do at each grade level. Adopting the *Sunshine State Standards (SSS)* in May of 1996 defined a clear set of standards for school districts in Florida and built what is described as an "equitable system of student assessment and school accountability" (Florida Department of Education, 2004b, p. 2). In 1995 and 1996, the Florida Educational Reform and Accountability Commission recommended the development of a statewide assessment system. This recommendation led to the development of the FCAT. The FCAT is designed to test as many of the *SSS* and benchmarks as appropriate for the selected grade levels. The test is designed in a multiple-choice format along with performance tasks, test questions require students to write answers at the upper grade levels entailing students demonstrate understanding rather than simply choosing an answer (Florida Department of Education, 2004b).

The primary purpose of the FCAT is to assess student achievement of the higher order cognitive skills represented in the *SSS* in Reading, Mathematics, Writing, and Science. The *SSS* portion of the FCAT is described as a criterion referenced test (CRT), in which students are measured according to mastery of the *SSS* and benchmarks. A second part of the FCAT is nationally norm referenced Stanford Achievement Test (SAT-10) that is used to compare the performance of Florida students to the Reading and Mathematics performance of students across the nation. Scores are reported to students, schools, and school districts in several ways. For the CRT, scores are reported on a scale of 100-500. Additionally, scores are reported as achievement levels ranging from one to five, with one being the lowest score and five being the highest (Florida Department of Education, 2004b).

Developmental scale scores are also reported for the CRT; these scores are designed to measure the learning gains of students as they move from one grade to another. Developmental scale scores range from 0 to about 3000; as students learn and progress from one grade to another, it is expected their developmental scale scores would also increase. A typical third grader scores nearer the lower range of the scale and a tenth grader scores closer to the upper range. Developmental gain scores are therefore used to determine adequate progress of students; expected one year gains for each grade level are described in Table 3. The state has defined adequate yearly progress at the state level based on three criteria: (a) an increase of one achievement level from the previous year, or (b) maintaining a level three or above from the previous year, or (c) students at level one and two demonstrate one year gained based on developmental scale scores.

Table 3

One-Year Gains in Developmental Scale Scores

Grade Level Change	Developmental Reading Scale Score Gain	Developmental Mathematics Scale Score Gain
3 to 4	230	162
4 to 5	166	119
5 to 6	133	95
6 to 7	110	78
7 to 8	92	64
8 to 9	77	54
9 to 10	77	48

According to the Florida Department of Education, the FCAT is a technically sound and valid instrument that meets or exceeds professional standards for standardized achievement tests. Reliability for internal consistency was tested using Cronbach's Alpha for the FCAT-SSS portion of the test and the KR-20 formula for the FCAT-NRT. Reliability coefficients reported confirm that the FCAT is a reliable test for assessment of educational achievement. In addition, interpretations of test scores are deemed valid based on three interrelated categories: content-related evidence, criterion-related evidence, and construct-related evidence (Florida Department of Education, 2004a).

The achievement data used in this study were FCAT developmental scale scores in reading and math from the 2003/2004 and 2004/2005 school years for students with

ESE classifications in the general education classrooms involved in looping and for students with ESE classifications in general education classroom but not involved in looping. Developmental Scale Scores were harvested from the school district's database with access granted this researcher. Scores were recorded from the school district's database solely by the researcher in order to maintain student confidentiality and anonymity.

Self-Efficacy Scales

Bandura's *Children's Self-Efficacy Scales* (2001) were modified and used to measure the self-efficacy of students with ESE classifications in both the experimental and control groups. In Bandura's *Guide for Constructing Self-Efficacy Scales* (2001), he described the construction of self-efficacy scales as a process that must be tailored to specific domains of functioning. Within Bandura's guide were several scales for measuring self-efficacy as it related to realms such as exercise, regulating eating habits, and a children's self-efficacy scale measuring specific domains of a social and academic nature. The *Children's Self-Efficacy Scales* are considered published material and no permission is necessary to use them for research purposes (E. Usher, personal communication November 5, 2004). Bandura suggested modification of the scales may be necessary to tailor them to suit the specific needs of a study. He recommended items selected for inclusion within these domains must reflect the construct of the domain since "perceived self-efficacy is a judgment of capability" (Bandura, 2001, p.1). Hence, the item language used is stated as *can* statements, not *will* because *can* is a judgment of capability while *will* is a statement of intent.

Bandura's self-efficacy scales were corroborated in several studies. In one study examining the potential causal role of students' self-efficacy beliefs and academic goals, Zimmerman, Bandura, and Martinez-Pons (1992) performed Cronbach's alpha reliability tests on each of the self-efficacy subscales used from Bandura's *Multidimensional Scales of Perceived Self-Efficacy* , also known as the *Children's Self-Efficacy Scales*: self-efficacy for self-regulated learning and self-efficacy for academic achievement. The two self-efficacy subscales were found to have coefficients of .87 for self-regulated learning and a .70 for the academic achievement subscales, respectively.

Similarly, Pajares (2001) conducted a study in which he determined that specific constructs, such as achievement goals and expectancy beliefs, could explain or predict academic motivation and achievement. In this study, he used Bandura's self-efficacy scales to measure academic self-efficacy and self-regulated learning. Pajares reported alpha coefficients from various studies ranging from .70 to .85 on the academic self-efficacy measures. For his particular study, he reported a .69 coefficient for the academic subscale. The self-efficacy for self-regulated learning subscale was reported as being corroborated by various other studies, with Cronbach alpha values ranging from .80 to .87. The alpha coefficient for Pajares' study and subscale was .81.

For the purpose of this study, a modified version of Bandura's *Children's Self-Efficacy Scales* (2001) was used to measure the self-efficacy of students with ESE classifications in both the experimental and control groups (Appendix A). The following subscales were used: (1) self-efficacy in enlisting social resources, (2) self-efficacy for academic achievement, (3) self-efficacy for self-regulated learning, (4) self-efficacy to meet others' expectations, (5) social self-efficacy, (6) self-assertive efficacy, and (7)

self-efficacy for enlisting parental and community support. The modified version of the *Children's Self-Efficacy Scales* was examined by Ellen Usher (personal communication, November 13, 2004) from Emory University, the source providing the scales for use. Usher concluded that the modifications made to the scale were in keeping with Bandura's guidelines; modifications did not change the measures of self-efficacy for children. A pilot was conducted on this modified version of the scales in order to refine the language in the scales and clarify vocabulary that students did not understand. It was determined that several of the questions required explanation of specific vocabulary. A child assent script was developed and specific examples were developed in order to explain vocabulary. This language was referred to consistently at each administration of the scales (Appendix C). The *Children's Self-Efficacy Scales* were given individually to each student with ESE classifications in both the experimental and control groups. These scales were not part of any intervention for either group and were given to students with ESE classifications participating in the already existing looping and inclusion classrooms.

Reliability measures were conducted on this modified version of the *Children's Self-Efficacy Scales* and an overall Cronbach's alpha coefficient of .93 was obtained. Alpha coefficients were also calculated for each subscale of the measure; reliability coefficients for the subscales ranged from a low of 0.38 (Self-efficacy for Enlisting Social Resources) to a high of 0.89 (Self-efficacy for Self-Regulated Behavior) and are reported in Table 4.

Table 4

Self-Efficacy Scales Reliability Measures

	Number of Cases	Number of Items	Alpha Coefficient
Self-Efficacy for Enlisting Social Resources	59	4	.38
Self-Efficacy for Academic Achievement	59	6	.65
Self-Efficacy for Self-Regulated Learning	59	11	.89
Self-Efficacy to Meet Others' Expectations	59	4	.68
Social Self-Efficacy	59	4	.63
Self-Assertive Efficacy	59	4	.76
Self-Efficacy for Enlisting Parental and Community Support	59	4	.74
Total Scale	59	37	.93

Initially, principals were asked to consent to support the implementation of this research within their schools because the school had either a looping classroom or an inclusion classroom (Appendix F). Fourth and fifth grade teachers were then asked to give consent to their participation in the study (Appendix E) and complete the Bandura's *Teacher Self-Efficacy Scales* (Appendix D). The sole purpose of administering these scales was to use the scores in matching teachers in the experimental group with teachers of students in the control group. These scales measured self-efficacy in the areas of: efficacy to influence decision-making, efficacy to influence school resources, instructional self-efficacy, disciplinary self-efficacy, efficacy to enlist parental involvement, efficacy to enlist community involvement, and efficacy to create a positive school climate (Bandura, 2001). An independent samples t-test was run to determine how closely the teachers were in their efficacy beliefs. The experimental group's mean score for the total scale was 182.38 out of a possible 270 with a standard deviation of 27.74; the control group's mean score was 186.13 with a standard deviation of 21.91. There was no statistically significant difference between the experimental and control groups for the total scale ($t = .76$, $p > .05$) or on each of the seven subscales.

In addition, teachers were asked to answer questions regarding teaching background and experience, for the purpose of comparing the two groups. Table 5 lists the demographics, credentials, and experience of the two groups of teachers.

Table 5

Teacher Demographics

	Experimental	Control
Gender		
Male	0	2
Female	8	14
Years Teaching Experience		
1-10	5	10
11-20	1	2
20+	2	4
Grade Taught		
Fourth	2	6
Fifth	6	10
Degree Held		
Bachelors	3	11
Masters	5	4
Doctorate	0	1
Times Looped		
Zero	0	12
One	3	1
Two	2	3
Three	3	0
Looping Training		
Yes	5	1
No	3	15

Procedures

The basic design of this study was causal comparative, or *ex post facto,* because the researcher was seeking to determine whether differences in achievement and self-efficacy were evident between two groups of students classified as ESE, but differing in terms of whether or not students had participated in the classroom organizational structure known as looping. A retrospective causal comparative study was chosen because the researcher began with a potential cause, looping, and studied its potential effects on achievement and self-efficacy. The hypotheses were that the experimental group would outperform the control group on student achievement measures in reading and math as a result of their participation in the looping classroom. In addition, it was hypothesized that the experimental group would outperform the control group on measures of self-efficacy and that there would be a correlation between reading and math developmental scale scores and self-efficacy scores.

Gay and Airasian (2000) identified limitations in this type of study as lack of randomization, manipulation, and control. Random assignment was not possible in this study because the looping groups already existed and had already experienced the independent variable, looping. However, matching the experimental and control groups at the three levels of school, teacher, and student did provide some degree of control over threats to the internal validity of the study. By selecting students for both the experimental and control groups with the same ESE classification, IQ, gender, grade, age, and free and reduced cost lunch classification, threats to internal validity such as maturation, differential selection of participants, and selection-maturation interaction were able to be controlled.

Timeline

A timeline for completion of this research study is listed in Table 6.

Table 6

Timeline for Proposed Study

Activities	Dates						
	December	January	February	March	April	May	June
Secure permission from school district and principals	X						
Secure permission from internal review board		X					
Secure permission from parents and conduct pilot of self-efficacy scales		X					
Secure permission from teachers			X				
Secure permission from parents			X	X			
Collect Data					X	X	X
Analyze data							X

Data Collection & Analysis

Permission was secured from the appropriate school district officials (Appendix F), teachers (Appendix E) and parents (Appendix B) in their native language. Data were collected when FCAT scores were released to the school district in May of 2005. Once developmental scale scores of both groups were obtained, an analysis of covariance (ANCOVA) was used to determine if statistically significant differences in reading and math achievement existed between the two groups. An ANCOVA was selected for use in this study in order to adjust for initial differences within the groups. By using the initial third grade FCAT developmental scale score of each student in the study as a covariate, the researcher was better able to level the playing field between the two groups and therefore, analyze more accurately change in achievement for the two groups over time.

The *Children's Self-Efficacy* Scales were also given to students in the experimental and control group by the researcher. It was administered individually and each item on the scales was read aloud to each student. Using the child assent script, specific examples were consistently provided in order to ensure each student understood specific vocabulary. Two statistical analyses were conducted using scores from the *Children's Self-Efficacy Scales*. An ANOVA was used to determine if there was a statistically significant difference in mean scores between the two groups. This was done in order to determine if one group scored significantly higher than the other on the self-efficacy measure.

The second test conducted on scores from the *Children's Self-Efficacy Scales* was a Pearson r. This test was conducted to determine if there was a correlation between developmental scale scores and self-efficacy scores. Scores from both the experimental

and control groups were analyzed in order to determine the degree to which higher achievement is associated with higher self-efficacy scores.

Significance of the Study

The implications for this study were important for the main stakeholder, the student with ESE classifications. If looping was demonstrated to be more effective in increasing achievement, as compared to a non-looping classroom structure, the student with ESE classifications would benefit the most as school districts consider looping as an organizational structure when designing programs for students. Furthermore, results will be able to be generalized to similar counties in the state of Florida containing similar economic and ethnic demographics. By generalizing as such, there would be support for the justification of looping as an instructional strategy for improving achievement.

An area for further investigation would be to conduct this study with a larger sample size in order to generalize to a larger ESE population. Additionally, the results of this study will be of further use in considering future areas of study, such as looping as an effective strategy for use with students speaking English as a second language.

It is imperative that school districts uniformly utilize empirical evidence in order to support instructional strategies or organizational arrangements in which we place children. This is particularly important when determining placements for students with special needs.

Assumptions and Limitations

Assumptions

When dealing with public school classrooms, several assumptions were made. First, this study used a specific population of elementary aged students identified by federal law as requiring ESE services. It was assumed that students receiving ESE services had been properly identified and were receiving public school services under state of Florida and federal law criteria. Additionally, it was assumed that the teaching personnel in the classrooms selected had appropriate teaching credentials for educating the selected population.

Another assumption was that the design of the study would minimize the influences of differences in the effectiveness of participating teachers or schools on the results of the study. Through the matching of students and teachers and using ANCOVA for statistical analysis, the playing field was leveled in this area.

Third, since the school district had adopted curriculum materials for use in the general education classroom, it was assumed that looping and non-looping students would be taught using a similar curriculum and would have access to similar resources and instructional materials.

Since the FCAT was used as the measure of student achievement, it was assumed that school personnel administered the FCAT according to standardized procedures and accurately reported scores. Moreover, it was assumed scores reported in the school district's data warehouse had been accurately recorded and available to view.

Additionally, it was assumed that the researcher administering the *Children's Self-Efficacy Scales* did so according to procedures set forth in the Internal Review Board

of the University of Central Florida procedure manual and described in the Sample Child Assent Script (Appendix C). It was also assumed that these scores were accurately tabulated and reported.

Limitations

The students selected for this study were not a randomized sample of students since the students were purposively chosen based on special needs status and their experiences in looping. Because of lack of randomization in the selection of a representative sample, the generalizability of the study's findings is limited to students with ESE classifications in this school district and those school districts with similar economic and ethnic demographics. This limitation was considered by the researcher; therefore, the elementary schools selected for the study were chosen because they represented the larger general population of schools throughout the school district and state of Florida.

In addition, Elementary A, B, C, and D were selected because the percentage of economically needy students ranged from 23% to 77%. By choosing such different schools for the study, results were able to be generalized to a larger population of students classified as ESE.

CHAPTER FOUR: RESULTS AND ANALYSIS OF DATA

Results as Related to Research Questions

A database was compiled from information collected from the school district's electronic *Data Warehouse* electronic database. The data gathered included students with ESE classifications' FCAT test scores and demographic information such as age, grade, gender, IQ, ESE classification, and free and reduced cost lunch qualifications. Additionally, scores for the *Children's Self-Efficacy Scales* were added to these student data. The final research database comprised 29 students with ESE classifications in the experimental group and 30 students with ESE classifications in the control group. These 59 students represented fourth and fifth grade students with ESE classifications in twelve schools. Table 7 provides a summary of participating students' demographics. The table describes the number of students in the experimental and control groups who were male and female, students' ages, grades, IQ ranges, ESE classification, and free and reduced cost lunch qualifications. Upon completion of data collection, data were analyzed in response to the research questions for this study. Research data were analyzed using *Statistical Package for the Social Sciences: Graduate Pack 11.5 for Windows* (SPSS, 2002).

Table 7

Student Demographics

Matching Criteria	Experimental	Control
Gender:		
Male	17	20
Female	12	10
Grade:		
4th	9	9
5th	20	21
Age:		
10	10	10
11	13	17
12	6	3
IQ Range:		
75-90	5	6
91-106	14	12
107-122	6	7
123-137	3	5
138+	1	0
ESE Classification:		
SLD	23	24
Language Impaired	1	1
Gifted	4	5
Physically Impaired	1	0
Qualified for free and reduced cost lunch:		
Yes	10	9
No	19	21

Research Question One

Is there a statistically significant difference in reading achievement, as measured by FCAT developmental scale scores, between students with ESE classifications who loop and those who do not loop?

In order to address this question, an analysis of covariance (ANCOVA) was computed with FCAT Reading developmental scale scores from the 2004/2005 school year serving as the dependent variable and FCAT Reading developmental scale scores from the 2002/2003 school year as the covariate. Group membership (i.e., experimental and control groups) served as the independent variable.

Using the 2002/2003 FCAT Reading developmental scale scores as the covariate limited the number of scores that could be analyzed due to the fact that not all students had taken the FCAT during that particular school year. Thus, a total of 42 scores were available, 23 in the experimental group and 19 in the control. The mean reading developmental scale score for the experimental group was 1564.83 with a standard deviation of 293.95 while the mean for the control group was 1487.00 with a standard deviation of 521.43. Once the effects of the covariate (FCAT Reading 2003-04) had been accounted for, the ANCOVA revealed no statistically significant difference between the experimental (looping) and control (non-looping) groups ($f = 1.19$, $p > .05$).

Table 8

ANCOVA Results for the FCAT Reading Developmental Scale Scores

Source	SS	df	MS	*F*	p
Group	126861.68	1	126861.68	1.19	.28*
Covariate (FCAT Reading 2003-04)	2626288.47	1	2626288.47	24.57	.00
Error	4168620.84	39	106887.71		

Note. * P > .05.

Research Question Two

Is there a statistically significant difference in math achievement, as measured by FCAT developmental scale scores, between students with ESE classifications who loop and those who do not loop?

An analysis of covariance (ANCOVA) was also computed in order to address this research question. FCAT math developmental scale scores from the 2004/2005 school year serving as the dependent variable and FCAT math developmental scale scores from the 2002/2003 school year served as the covariate. Group membership (i.e., experimental versus control) served as the independent variable.

Using the 2002/2003 FCAT Math developmental scale scores as the covariate limited the number of scores that could be analyzed due to the fact that not all students had taken the FCAT during that particular school year. A total of 41 scores were available, 23 in the experimental group and 18 in the control. The mean math developmental scale score for the experimental group was 1565.70 with a standard deviation of 199.89 while the mean for the control group was 1658.94 with a standard deviation of 158.48. Once the effects of the covariate (FCAT math 2003-04) had been

accounted for, the ANCOVA revealed no statistically significant difference between the experimental and control groups ($f = 2.70$, $p > .05$).

Table 9

ANCOVA Results for the FCAT Math Developmental Scale Scores

Source	SS	df	MS	*F*	p
Group	47821.95	1	47821.95	2.70	.11*
Covariate (FCAT math 2003-04)	632643.67	1	632643.67	35.70	.00
Error	673360.14	38	17720.00		

Note. * P > .05.

Research Question Three

Is there a statistically significant difference in the self-efficacy of students with ESE classifications who loop and those who do not loop, as measured by the *Children's Self-Efficacy Scales*?

To address this question an independent samples t-test was used to analyze data from the *Children's Self-Efficacy Scales.* An independent samples t-test was conducted on the total score and on each of the seven subscales for the entire group of students in both the experimental and control groups (N=59). The self-efficacy scales had seven subscales: (1) Self-Efficacy in Enlisting Social Resources, (2) Self-Efficacy for Academic Achievement, (3) Self-Efficacy for Self-Regulated Learning, (4) Self-Efficacy to Meet Others' Expectations, (5) Social Self-Efficacy, (6) Self-Assertive Efficacy, and (7) Self-Efficacy for Enlisting Parental and Community Support.

The experimental group's mean score for the total scale was 192.97 out of a possible 259 with a standard deviation of 32.98; the control group's mean score was

188.27 with a standard deviation of 29.14. There was no statistically significant difference between the experimental and control groups on self-efficacy, as measured by total score ($f = .89$, $p > .05$).

The mean score for the subscale Self-Efficacy in Enlisting Social Resources for the experimental group was 20.07 out of a possible 28 with a standard deviation of 3.54; while the mean score for the control group was 19.50 with a standard deviation of 4.02 on the same subscale. As indicated by an independent groups t-test, there was no statistically significant difference between the experimental and control groups for the subscale Self-Efficacy in Enlisting Social Resources ($f = .42$, $p > .05$).

The mean score for the subscale Self-Efficacy for Academic Achievement for the experimental group was 30.52 out of a possible 42 with a standard deviation of 5.05; while the mean score for the control group was 32.50 with a standard deviation of 5.44 on the same subscale. As indicated by an independent groups t-test, there was no statistically significant difference between the experimental and control groups for the subscale Self-Efficacy for Academic Achievement ($f = .41$, $p > .05$).

For the subscale Self-Efficacy for Self-Regulated Learning there was a possible score of 77. The mean score for the experimental group was 54.76 with a standard deviation of 12.41 and the mean score for the control group was 53.37 with a standard deviation of 11.65. As indicated by an independent groups t-test, there was no statistically significant difference between the experimental and the control groups for the subscale Self-Efficacy for Self-Regulated Leaning ($f = .19$, $p > .05$).

The mean score for the subscale Self-Efficacy to Meet Others' Expectations for the experimental group was 22.38 out of a possible 28 with a standard deviation of 4.34;

while the mean score for the control group was 20.67 with a standard deviation of 4.07 on the same subscale. As indicated by an independent groups t-test, there was no statistically significant difference between the experimental and control groups for the subscale Self-Efficacy to Meet Others' Expectations ($f = .03$, $p > .05$).

For the subscale Social Self-Efficacy there was a possible score of 28. The mean score for the experimental group was 23.59 with a standard deviation of 3.48 and the mean score for the control group was 22.43 with a standard deviation of 3.68. As indicated by an independent groups t-test, there was no statistically significant difference between the experimental group and the control groups for the subscale Social Self-Efficacy ($f = .81$, $p > .05$).

The mean score for the subscale Self-Assertive Efficacy for the experimental group was 21.41 out of a possible 28 with a standard deviation of 5.83; while the mean score for the control group was 21.23 with a standard deviation of 4.92 on the same subscale. As indicated by an independent groups t-test, there was no statistically significant difference between the experimental and control groups for the subscale Self-Assertive Efficacy ($f = 1.17$, $p > .05$).

For the last subscale, Self-Efficacy for Enlisting Parental and Community Support, the experimental group scored a mean of 20.24 out of a possible 28 with a standard deviation of 5.10. The control group scored a mean of 18.57 with a standard deviation of 5.72 on the same subscale. As indicated by an independent groups t-test, there was no statistically significant difference between the experimental and control groups on the subscale Self-Efficacy for Enlisting Parental and Community Support ($f =$

.44, $p > .05$). Table 10 provides a description of the independent samples t-test for the *Children's Self-Efficacy Scales.*

Table 10
Independent Samples t test – Children's Self-Efficacy Scales

	Levene's Test for Equality of Variances				t-test for Equality of Means				
	Mean	Standard Deviation	F	Sig.	t	df	Sig (2-tailed)	Mean Diff	Std. Error Diff.
Total Score for Self-Efficacy Scales	**192.97	**32.98							
	***188.27	***29.14	.89	.35	.58	57	*.56	4.70	8.10
Self-Efficacy in Enlisting Social Resources	**20.07	**3.54							
	***19.50	***4.02	.42	.52	.58	57	*.57	.57	.99
Self-Efficacy for Academic Achievement	**30.52	**5.05							
	***32.50	***5.44	.41	.53	-1.45	57	*.15	-1.98	1.37
Self-Efficacy for Self-Regulated Learning	**54.76	**12.41							
	***53.37	***11.65	.19	.66	.44	57	*.66	1.39	3.13
Self-Efficacy to Meet Others' Expectations	**22.38	**4.34							
	***20.67	***4.07	.03	.87	1.56	57	*.12	1.71	1.10
Social Self-Efficacy	**23.59	**3.48							
	***22.43	***3.68	.81	.37	1.24	57	*.22	1.15	.93
Self-Assertive Efficacy	**21.41	**5.83							
	***21.23	***4.92	1.17	.29	.13	57	*.90	.18	1.40
Self-Efficacy for Enlisting Parental and Community Support	**20.24	**5.10							
	***18.57	***5.72	.44	.51	1.19	57	*.24	1.67	1.41

Note. , * p >.05, ** Experimental Group, ***Control Group

Research Question Four

Is there a statistically significant correlation between reading developmental scale scores and self-efficacy scores, as measured by the FCAT and the *Children's Self-Efficacy Scales*?

For this question, a Pearson r was computed for the entire group of students in the experimental and control group (N=59). A significant positive correlation was found between the FCAT Reading developmental scale scores and the total score on the *Children's Self-Efficacy Scales* ($r = .37$, $p < .05$). Approximately 14% of the variance in reading achievement (as measured by the FCAT) was therefore associated with self-efficacy scores (total score). Viewed another way, 86% of the variance in reading achievement as measured by the FCAT is unexplained by self-efficacy (as measured by the total score of Bandura's instrument).

An additional Pearson r was computed for the experimental and control group individually. A significant positive correlation was found between the FCAT Reading developmental scale scores and the total score on the *Children's Self-Efficacy Scales* for the experimental group ($N = 29$, $r = .39$, $p < .05$). Approximately 15% of the variance in reading achievement and self-efficacy scores was shared which means that 85% of the variance in reading achievement was unexplained by total self-efficacy score.

In addition, a significant positive correlation was found between FCAT Reading developmental scale scores and the total score on the *Children's Self-Efficacy Scales* for the control group ($N = 30$, $r = .38$, $p < .05$). Approximately 14% of the variance in reading achievement and self-efficacy scores was shared which means that 86% of the variance in reading achievement was unexplained by total self-efficacy score

Table 11

Correlation between Reading Achievement and Self-Efficacy Scores

	N	r
Experimental	29	.39*
Control	30	.38*
Entire Sample	59	.37*

**Note p < .05*

Research Question Five

Is there a statistically significant correlation between math developmental scale scores and self-efficacy scores, as measured by the FCAT and the *Children's Self-Efficacy Scales*?

For this question, a Pearson r was computed for the entire group of students in the experimental and control group (N=59). A significant positive correlation was found between the FCAT Math developmental scale scores and the total score on the *Children's Self-Efficacy Scales* ($r = .43$, $p < .05$). Approximately 19% of the variance in math achievement (as measured by the FCAT) was therefore associated with self-efficacy total score. Viewed another way, 81% of the variance in math achievement as measured by the FCAT is unexplained by self-efficacy (as measured by the total score of Bandura's instrument).

Additionally, a Pearson r was computed for the experimental and control group individually. A significant positive correlation was found between the FCAT Math developmental scale scores and the total score on the *Children's Self-Efficacy Scales* for the experimental group ($N = 29$, $r = .54$, $p < .05$). Approximately 29% of the variance in

math developmental scale scores and self-efficacy scores was shared which means that 71% of the variance in math achievement was unexplained by total self-efficacy score.

In addition, a significant positive correlation was found between FCAT Math developmental scale scores and the total score on the *Children's Self-Efficacy Scales* for the control group ($N = 30$, $r = .35$, $p < .05$). Approximately 12% of the variance in math developmental scale scores and self-efficacy scores was shared which means that 88% of the variance in math achievement was unexplained by total self-efficacy score.

Table 12

Correlation between Math Developmental Scale Scores and Self-Efficacy Scores

	N	r
Experimental	29	.54*
Control	30	.35*
Entire Sample	59	.43*

**Note: $p < .05$*

To summarize, there was no statistically significant difference between groups in reading achievement, math achievement, or total self-efficacy score. Moreover, there was no statistically significant difference between groups on the seven subscales of the *Children's Self-Efficacy Scales.* However, there was a modest statistical significance between reading achievement and self-efficacy total score. In addition, there was also a modest statistical significance between math achievement and self-efficacy score.

CHAPTER FIVE: CONCLUSIONS

Summary of the Study

The focus of the current study was to examine the effects of looping on academic achievement and self-efficacy for elementary aged students with ESE classifications. The basic design of this study was causal comparative (ex post facto) because the researcher sought to determine the degree to which differences in achievement and self-efficacy existed between two groups of elementary students with ESE classifications, those who were experiencing looping and those who were not. A retrospective causal comparative study was chosen because the researcher began with a potential cause, looping, and studied the potential effects on achievement and self-efficacy. The hypotheses were that the experimental group would outperform the control group on student achievement measures in reading and math as a result of their participation in the looping classroom. In addition, it was hypothesized that the experimental group would outperform the control group on measures of self-efficacy and that there would be a correlation between reading and math achievement and self-efficacy scores.

Gay and Airasian (2000) identified limitations in this type of study as lack of randomization, manipulation, and control. Random assignment was not possible in this study because the looping groups already existed and had already received the independent variable, looping. However, matching the experimental and control groups at the three levels of school, teacher, and student provided substantial control for many threats to internal validity. By carefully controlling extraneous variables, the researcher was able to limit external and internal threats to validity and thereby ensure that the two

groups participating in the study were as similar as possible aside from the presence/absence of the looping condition.

Discussion of Results

Academic Achievement

Analysis of the data in the current study found no statistically significant difference between students with ESE classifications who loop and students with ESE classifications who do not loop on standardized measures of academic achievement in reading and math.

It is reasonable to conclude that there may be other variables contributing to the increase in developmental scale scores in both the experimental and control group. Variables such as teacher delivery of curriculum, individual developmental stages, individual maturity, and parental support could have influenced the increase in developmental scale scores. It is important to note that the overall mean in Math was greater for the control group than the experimental; however, the overall mean for reading was greater for the experimental group. It is also important to note that no control for curriculum was examined in this study between experimental and control groups. Based upon the statistical analysis presented in this study, there is no evidence to conclude that there was any added value to the normal academic development of students with ESE classifications by the experience of the classroom organizational structure known as looping. It is possible that the small sample size limited the statistical power of the tests used and that there may not have been sufficient sample size to detect even a small effect.

Self-Efficacy

Analysis of the data in the current study found no statistically significant difference in overall means for self-efficacy between students with ESE classifications who loop and students with ESE classifications who do not loop. Additional analysis of each of the seven subscales on the *Children's Self-Efficacy Scales* also revealed no statistically significant difference between groups on each of the subscales.

However, when a Pearson r was conducted to determine whether there was a relationship between self-efficacy scores and reading and math achievement, a statistical significance was found. Despite the fact that there was a relationship, in both the case of reading and math achievement, that relationship was considered to be modest. The analysis revealed self-efficacy scores explained between 15% and 20% of the variance in achievement. Additionally, there was no difference in the total self-efficacy of students with ESE classifications who looped and those who did not loop. Therefore, it is reasonable to conclude that self-efficacy was not strongly related to student achievement. Consequently, looping does not appear to be associated with comparatively high levels of self-efficacy. From that standpoint, it would seem that there were multiple pathways contributing to a child's self-efficacy. Therefore, even if there is a strong relationship between self-efficacy and achievement, it is still relatively difficult to explain. In other words, does high self-efficacy lead to high achievement or does high achievement lead to high self-efficacy?

Implications

Although the actual organizational strategy of looping in and of itself is not reflected in the literature as leading to academic improvement over and above what

would normally be expected as a result of regularly attending school, Bandura's self-efficacy beliefs appear to contribute to the dynamics of learning within the looping classroom. Bandura (1994) noted the school environment was the primary setting for the promotion and social verification of cognitive competencies during the child's most formative years of development. He declared school the place where children developed cognitive competencies and acquired the knowledge and problem-solving skills necessary for participation in society. School was the setting where knowledge and thinking skills were tested, evaluated, and socially compared. As cognitive skills were mastered, intellectual efficacy was developed. Factors such as peer modeling of cognitive skills, social comparison with the performance of others, motivational enhancement through goals and positive incentives, and teachers' interpretations of success and failure affected a child's judgment of intellectual efficacy.

Bandura (1994) stated classroom structures affected the development of intellectual self-efficacy, largely because of the emphasis placed on social comparison versus self-comparison appraisal. A personalized classroom setting with individualized instruction suited to student knowledge and skills enabled children to expand their competencies and provided for less social comparison. He recommended cooperative learning structures whereby students worked together and helped one another; he believed this promoted positive self-evaluations of capability and higher academic attainment.

The findings of this study were consistent with others on looping (Brugger, 2003; McNamara, 2003; Snyder, 2003). Based on the limited number of studies conducted on the effects of looping with students with ESE classifications, this research confirms that it

may be too early to say whether looping has any impact on reading and math achievement, or self-efficacy. While there is no evidence saying it hinders academic achievement, this study showed no measurable academic benefit to the classroom structure known as looping. Small sample size may have contributed to the overall results of this study and may have limited the statistical power necessary to detect a small effect. In addition, looping is not usually done on a school-wide or district-wide basis; therefore, it may be difficult to obtain a statistically adequate sample size in order to conduct a study on students with ESE classifications. Moreover, research findings may be biased in that most teachers volunteer to loop with a class; they are not usually randomly assigned.

The findings of this study imply that further research regarding the differences between lower and higher socioeconomic school and classroom environments may be warranted. Additionally, it would be worthwhile to schools to investigate whether lower socioeconomic schools have a need to explore the benefits of looping in order to provide a more positive environment for students' emotional and social growth that is emphasized throughout the research by Albert Bandura and the concept of self-efficacy.

Recommendations

This study focused on the academic achievement and self-efficacy of students with ESE classifications in looping and non-looping classrooms. Further research on the instructional strategy of looping should include replication of the current study with a larger sample size of students with ESE classifications. Additionally, the effects of looping should be investigated in relation to students' writing, discipline, attendance, grades, and study habits. Moreover, a follow-up study of the longer-term effects of

looping and self-efficacy over time would be of interest. Following up with students with ESE classifications in the current study as middle school students to determine whether self-efficacy scores have been maintained outside the looping classroom environment would contribute greatly to the literature on self-efficacy.

With respect to the teacher in the looping classroom, further research addressing the benefits for teachers with regard to job satisfaction or determining whether teachers in a looping classroom prefer trying additional instructional strategies as compared to teachers in traditional classrooms would be an area of interest for educators. Additionally, surveying teachers in looping classrooms versus teacher in more traditional classrooms regarding attitudes, delivery of curriculum, and teaching styles would also be relevant in adding to the body of work existing on looping and self-efficacy.

A final area for further research would be to pursue parental attitudes with regards to looping. A parent attitude survey comparing parental support of looping to parental support of traditional classrooms would also add to the body of research on looping.

Conclusions

Prisoners of Time (2000), the National Education Commission on Time and Learning report, conveys the issues of race relations, discrimination, socioeconomic status, stereotypes, and views about marriage as just some of the concerns American families and society are struggling with today. This report documents statistics and commentary gathered from the Children's Defense Fund demonstrating the alteration of the nuclear family of present day society. Statistics such as 64 % of mothers with children under the age of six work outside the home, 30 % of working mothers with children under the age of six are single parents, and nearly five million children go home

to an empty house each day are just a few of the factors affecting the disintegration of family (p. 34). Additionally, it was reported that low-income families and families of poverty must also contend with the demands of inaccessible healthcare, unaffordable housing, unsafe living conditions, depression, and disabilities. These statistics were reported as depicting a vicious cycle, one that placed the child at the center.

The report, *Prisoners of Time* (2000), also stated today's youth are growing up in a bigger society in which a large majority of communities were disconnected and impersonal, 2.13 million children were living in a relative's home with no parent present, one in five children were poor, and 3.4 million children and adolescents were severely depressed (p.40). This report questioned how six hours of school could contend with the other 18 hours children spend exposed to outside influences. It also questioned how teachers, in the first 180 days of the child's first year of school, contend with the first five and most impressionable years of a child's life. James Coleman, sociologist and civil rights activist, is quoted in this report as stating "the inequalities imposed on children by their home, neighborhood, and peer environment are carried along to become the inequalities with which they confront adult life at the end of school" (p. 41).

In order to accommodate changes in society and still continue to educate youth, educators must examine organizational strategies and be open to change within the classroom. Looping is one instructional strategy that should be considered. This study proposed to examine looping and its effects on reading and math achievement and the self-efficacy of students with ESE classifications. By examining how looping related to academic achievement and self-efficacy, the researcher attempted to fill a gap in the literature with respect to looping and, in particular, a very specific population of students.

While no statistically significant difference was found between two groups of looping and non-looping students with ESE classifications with regard to academic achievement and self-efficacy, a moderate statistically significant correlation was found between reading and math achievement and self-efficacy. This finding would appear to suggest that further research is needed regarding multiple pathways contributing to a child's self-efficacy. Even if there is a strong relationship between self-efficacy and achievement, it is still relatively difficult to explain. In other words, does high self-efficacy lead to high achievement or does high achievement lead to high self-efficacy? This may provide another avenue for further research in the area of academic achievement.

Looping is an organizational strategy that can offer many benefits to teachers, students, and parents. Although this study did not reveal statistical significance in the organizational strategy of looping, it is reasonable to conclude that, looping can provide a classroom environment that is nurturing, anxiety free, predictable, and stable. What remains would be to determine if non-looping classrooms can provide the student with ESE classifications the same type of environment. After all, the ultimate goal of any school organizational structure should be to provide each student with an environment that promotes definitive academic and self-efficacy growth.

APPENDIX A

CHILDREN'S SELF-EFFICACY SCALES

This questionnaire is designed to help us get a better understanding of the kinds of things that are difficult for students. Please rate how well you can do the things described below by circling the appropriate number. Your answers will be kept strictly confidential and will not be identified by name. Please give your frank opinions.

1. How well can you get teachers to help you when you get stuck on schoolwork?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
2. How well can you get another student to help you when you get stuck on schoolwork?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
3. How well can you get adults to help you when you have social problems?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
4. How well can you get a friend to help you when you have social problems?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
5. How well can you learn general mathematics?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
6. How well can you learn science?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
7. How well can you learn reading, writing, and language skills?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
8. How well can you learn to use computers?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
9. How well can you learn social studies?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
10. How well can you learn English grammar?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well

11. How well can you finish your homework assignments by deadlines?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
12. How well can you study when there are other interesting things to do?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
13. How well can you concentrate on school subjects?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
14. How well can you take notes in class?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
15. How well can you use the library to get information for class assignments?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
16. How well can you plan your school work?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
17. How well can you organize your school work?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
18. How well can you remember information presented in class and textbooks?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
19. How well can you arrange a place to study without distractions?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
20. How well can you motivate yourself to do school work?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
21. How well can you participate in class discussions?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
22. How well can you live up to what your parents expect of you?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
23. How well can you live up to what your teachers expect of you?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well

24. How well can you live up to what your peers expect of you?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
25. How well can you live up to what you expect of yourself?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
26. How well can you make and keep friends of the opposite sex?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
27. How well can you make and keep friends of the same sex?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
28. How well can you carry on conversations with others?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
29. How well can you work in a group?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
30. How well can you express your opinions when other classmates disagree with you?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
31. How well can you stand up for yourself when you feel you are being treated unfairly?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
32. How well can you deal with situations where others are annoying you or hurting your feelings?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
33. How well can you stand firm to someone who is asking you to do something unreasonable or inconvenient?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
34. How well can you get your parents to help you with a problem?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
35. How well can you get your brother(s) and sister(s) to help you with a problem?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well
36. How well can you get your parents to take part in school activities?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well

37. How well can you get people outside the school to take an interest in your school (for example, community groups, churches)?	1 Not well at all	2	3 Not too well	4	5 Pretty well	6	7 Very well

From *Guide for Constructing Self-Efficacy Scales* by Albert Bandura, 2001, Stanford University. Reprinted and adapted with permission.

APPENDIX B

PARENTAL CONSENT FORM

January 5, 2005
Dear Parent/Guardian:

I am a graduate student at the University of Central Florida under the supervision of faculty member, Dr. Dan Ezell, conducting research on the academic achievement and self-efficacy of elementary aged ESE students currently participating in looping and inclusion classrooms. I will be collecting data, such as test scores, on what qualified your child for services in Exceptional Student Education. I will also be examining your child's FCAT scores in order to determine academic growth over a two year period of time. The purpose of this study is to measure the ESE students' self-efficacy, or perceived perceptions of their capabilities, in the classroom setting and within their community, along with academic achievement over time. The *Children's Self-Efficacy Scales* will be used to measure how well your child believes he/she is able to do certain things such as ask a teacher or parent for help, work in a group, and learn specific subjects in school. It is a 37 item questionnaire that I will read aloud to your child individually at his/her school. Although your child will be asked to write his/her name on the questionnaires for matching purposes, his/her identity will be kept confidential to the extent provided by law. I will replace his/her name with code numbers. Results will be reported in the form of individual and group data and this data will be kept in a locked file cabinet. At no time will your child be identified by name and test scores will not be available to anyone but me. Participation or nonparticipation in this study will not affect your child's grades or placement in any programs.

You and your child have the right to withdraw consent for your child's participation at any time without consequence. There are no known risks or immediate benefits to the participants. No compensation is offered for participation. Results of this study will be available in December upon request. If you have any questions about this research project, please contact me at (239) 304-8517 or my faculty supervisor, Dr. Dan Ezell, at (321) 433-7943. Questions or concerns about participants' rights may be directed to the UCFIRB office, University of Central Florida Office of Research, Orlando Tech Center, 12443 Research Parkway, Suite 207, Orlando, FL 32826. The hours of operation are 8:00 am until 5:00 pm, Monday through Friday except on University of Central Florida official holidays. The phone number is (407) 823-2901.

Sincerely,

Marybeth Thomas

_____ I have read the procedure described above.

_____ I voluntarily give consent for my child, _____, to participate in Marybeth Thomas' study of self-efficacy.

Parent Signature _____

APPENDIX C

CHILD ASSENT SCRIPT

My name is XXXXX and I am a student at the University of Central Florida. I would like to ask you some questions that will give me a better understanding of the kinds of things that are difficult for students. I will read each item to you and you will rate how well you can do the things described below by circling the appropriate number. (Point to the scale and say the following) You will circle a one if you feel this is something you can do "not well at all" and a three if it is something you feel you can do "not too well". If you feel your response would be between "not well at all" and "not too well", you will circle a two. You will circle a five if it is something you can do "pretty well" or circle a four if it is something you feel would be between "not too well" and "pretty well". You will circle a seven if it is something you feel you can do "very well" or you will circle a six if you feel it is something would be between "pretty well" and "very well". If you have any questions about any of the words I use, please feel free to ask me to explain. Your answers will be kept strictly confidential and you will not be identified by name. Please give your honest opinions. Would you like to do this?

The following examples are to be used for these specific questions:

Questions 3 and 4: "social problems" are described as when you have problems with other children such as if you are bullied or someone does something you know is wrong or someone tries to get you to do something that you know is not right.

Question 10: Example of English grammar: understand what nouns and verbs are or how to use a semi colon or comma in a sentence.

Question 16: "How well can you make a plan in order to do your schoolwork?"

Question 17: "How well can you put your schoolwork in order so that it gets done?"

Question 20: "How well can you get yourself to start your work and finish it?"

Question 24: "Peers" are described as children your age.

Question 26: If speaking to a boy, say, "How well can you make and keep friends that are girls?" If speaking to a girl, say, "How well can you make and keep friends that are boys?"

Questions 27: If speaking to a boy: "How well can you make and keep friends that are boys?" If speaking to a girl: "How well can you make and keep friends that are girls?"

Question 33: "This is peer pressure. How well can you not give in when someone is asking you to do something that you know is not right or that you feel you are not able to do".

Question 35: If a child says they do not have a brother or sister, ask "How well can you get a friend to help you with a problem?"

APPENDIX D

TEACHER SELF-EFFICACY SCALE

This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinions about each of the statements below ***by circling a number between 1 and 9.***

Your answers will be kept strictly confidential and you will not be identified by name.

PLEASE USE THIS SCALE:

1 Not At All	2	3 Very Little	4	5 Some	6	7 Quite A Bit	8	9 A Great Deal

1.	How much can you influence the decisions that are made in the school?	1	2	3	4	5	6	7	8	9
2.	How much can you express your views freely on important school matters?	1	2	3	4	5	6	7	8	9
3.	How much can you do to get the instructional materials and equipment you need?	1	2	3	4	5	6	7	8	9
4.	How much can you do to influence the class sizes in your school?	1	2	3	4	5	6	7	8	9
5.	How much can you do to get through to the most difficult students?	1	2	3	4	5	6	7	8	9
6.	How much can you do to promote learning when there is a lack of support from the home?	1	2	3	4	5	6	7	8	9
7.	How much can you do to keep students on task on difficult assignments?	1	2	3	4	5	6	7	8	9
8.	How much can you do to increase students' memory of what they have been taught in previous lessons?	1	2	3	4	5	6	7	8	9
9.	How much can you do to motivate students who show low interest in schoolwork?	1	2	3	4	5	6	7	8	9
10.	How much can you do to get students to work together?	1	2	3	4	5	6	7	8	9

1 Not At All	2	3 Very Little	4	5 Some	6	7 Quite A Bit	8	9 A Great Deal

11.	How much can you do to overcome the influence of adverse community conditions on students' learning?	1	2	3	4	5	6	7	8	9
12.	How much can you do to get children to do their homework?	1	2	3	4	5	6	7	8	9
13.	How much can you do to get children to follow classroom rules?	1	2	3	4	5	6	7	8	9
14.	How much can you do to control disruptive behavior in the classroom?	1	2	3	4	5	6	7	8	9
15.	How much can you do to prevent problem behavior on the school grounds?	1	2	3	4	5	6	7	8	9
16.	How much can you do to get parents to become involved in school activities?	1	2	3	4	5	6	7	8	9
17.	How much can you assist parents in helping their children do well in school?	1	2	3	4	5	6	7	8	9
18.	How much can you do to make parents feel comfortable coming to school?	1	2	3	4	5	6	7	8	9
19.	How much can you do to get community groups involved in working with the schools?	1	2	3	4	5	6	7	8	9
20.	How much can you do to get churches involved in working with the school?	1	2	3	4	5	6	7	8	9
21.	How much can you do to get businesses involved in working with the school?	1	2	3	4	5	6	7	8	9
22.	How much can you do to get local colleges and universities involved in working with the school?	1	2	3	4	5	6	7	8	9
23.	How much can you do to make the school a safe place?	1	2	3	4	5	6	7	8	9

1 Not At All	2	3 Very Little	4	5 Some	6	7 Quite A Bit	8	9 A Great Deal

24.	How much can you do to make students enjoy coming to school?	1	2	3	4	5	6	7	8	9
25.	How much can you do to get students to trust teachers?	1	2	3	4	5	6	7	8	9
26.	How much can you help other teachers with their teaching skills?	1	2	3	4	5	6	7	8	9
27.	How much can you do to enhance collaboration between teachers and the administration to make the school run effectively?	1	2	3	4	5	6	7	8	9
28.	How much can you do to reduce school dropout?	1	2	3	4	5	6	7	8	9
29.	How much can you do to reduce school absenteeism?	1	2	3	4	5	6	7	8	9
30.	How much can you do to get students to believe they can do well in school work?	1	2	3	4	5	6	7	8	9

Adapted with permission from *Guide for Constructing Self-Efficacy Scales* by Albert Bandura, 2001, Stanford University.

Please also provide the following information (for statistical analysis purposes only):

Your gender? (circle one) Male Female

How many years have you been teaching? _____

What grade level do you teach? _____

Your highest degree earned? (circle one) Bachelors Masters Specialist Doctorate

How many times have you looped with a class? _____

What training have you received regarding looping?

APPENDIX E

TEACHER CONSENT FORM

I am a graduate student at the University of Central Florida under the supervision of faculty member, Dr. Dan Ezell, conducting research on the academic achievement and self-efficacy of elementary aged ESE students. The purpose of this research is to measure the effectiveness of looping on the academic achievement of ESE students; it will also measure ESE students' self-efficacy scores. In order to determine how effective looping is as an instructional strategy, I will be comparing FCAT and self-efficacy scores of ESE students who loop with the scores of ESE students who do not loop. Those ESE students who loop will make up the experimental group of this study; and, those ESE students who do not loop will be the control group. You are being asked to participate in this study because you are either teaching in a looping classroom or teaching in an inclusion classroom within the Collier County Public Schools. In order to gain a better understanding of the kinds of things that create difficulties for teachers in their school activities, you will be asked to complete a teacher self-efficacy scale. Your responses to the self-efficacy scales will be used as part of my dissertation research solely for the purpose of matching groups. There are no correct or incorrect answers. I am only interested in your frank opinion. Your answers will be kept strictly confidential and you will not be identified by name. All data collected will be kept in a locked file cabinet. In addition, you will be asked to complete a brief demographic sheet needed to assure anonymity. The Research Oversight Committee of the district has approved this research. Data gathered about you, the school, and students will be kept strictly confidential. Strict procedures to insure confidentiality of all participants have been approved by the Internal Review Board of the University of Central Florida. All teachers' and students' responses are anonymous. You may skip any item that you feel uncomfortable answering. If you consent to participate in this research, please sign this consent form and return it to me separately from the instruments. If you do not wish to participate, please indicate as such and return this form to me. You have the right to withdraw consent for your participation at any time without consequence. There are no known risks or immediate benefits to the participants. No compensation is offered for participation. Results of this study will be available in December upon request. If you have any questions about this research project, please contact me at (239) 304-8517 or my faculty supervisor, Dr. Dan Ezell, at (321) 433-7943. Questions or concerns about participants' rights may be directed to the UCFIRB office, University of Central Florida Office of Research, Orlando Tech Center, 12443 Research Parkway, Suite 207, Orlando, FL 32826. The hours of operation are 8:00 am until 5:00 pm, Monday through Friday except on University of Central Florida official holidays. The phone number is (407) 823-2901.

Thank you so much for your assistance in this research that will contribute to our knowledge about education.

Sincerely,

Marybeth Thomas

_____ I have read the procedure described above and agree to participate in this study.

_____ I have read the procedure described above and do not wish to participate in this study.

_____ I would like to receive a copy of the final analysis of the data.

_____ I do not wish to receive a copy of the final analysis of the data.

Teacher Signature

APPENDIX F

PRINCIPAL PERMISSION FORM

Date _____

Dear _____,

I am a graduate student at the University of Central Florida under the supervision of faculty member, Dr. Dan Ezell, conducting research on the academic achievement and self-efficacy of elementary aged ESE students. The purpose of this research is to measure the effectiveness of looping on the academic achievement of ESE students; it will also measure ESE students' self-efficacy scores. In order to determine how effective looping is as an instructional strategy, I will be comparing FCAT and self-efficacy scores of ESE students who loop with the scores of ESE students who do not loop. Those ESE students who loop will make up the experimental group of this study; and, those ESE students who do not loop will be the control group.

You are being asked to consent to support the participation of selected teachers within your school because your school either has a looping classroom or an inclusion classroom within the Collier County Public Schools. In order to gain a better understanding of the kinds of things that create difficulties for teacher in their school activities, several select teachers will be asked to complete a teacher self-efficacy scale. Their responses to the self-efficacy scales will be used as part of my dissertation research. All information regarding your school and teachers who choose to participate in this study will remain strictly confidential. Participation in this study will require selected teachers in your school to complete a teacher self-efficacy scale; this should require about 20 minutes of their time. In addition, I will be administering a self-efficacy scale to selected ESE students in your school. Upon informed consent from the parents of selected students, this scale will be administered individually and should take approximately 20 minutes per student to complete. As building principal, you will not need to complete any forms nor will I need any school personnel to collect the necessary data for this study.

The Research Oversight Committee of the district has approved this research. Data gathered about the school, teachers, and students will be kept strictly confidential and will be kept secure in a locked file cabinet. Strict procedures to insure confidentiality of all participants have been approved by the Internal Review Board of the University of Central Florida. All teachers' and students' responses are anonymous.

If you consent to support your school's participation in this research, please sign this consent form and return it to me. If you do not wish to provide support for your school's participation, please indicate as such and return this form to me. Should you have any questions, please feel free to contact me at (239) 304-8517. Should you have any questions that I am unable to answer, you are free to contact my dissertation committee at the University of Central Florida at (321) 433-7943.

Thank you so much for your assistance in this research that will contribute to our knowledge about education.

Sincerely,

Marybeth Thomas
_____ I have read the procedure described above and give permission for the release of student identification numbers for the ESE population.

_____ I have read the procedure described above and do not give permission for the release of student identification numbers for the ESE population.

_____ I request a copy of the data analysis.

_____ I do not request a copy of the data analysis.

Principal Signature

APPENDIX G

IRB APPROVAL FORMS

University of Central Florida

Office of Research and Commercialization

February 21, 2005

Marybeth Thomas
Sea Gate Elementary School
650 Sea Gate Drive
Naples, FL 34103

Ms. Thomas:

With reference to your protocol entitled, "The Effects of Looping on Student Achievement and Self-Efficacy of Exceptional Education Students" I am enclosing for your records the approved, expedited document of the UCFIRB Form you had submitted to our office.

Please be advised that this approval is given for one year. Should there be any addendums or administrative changes to the already approved protocol, they must also be submitted to the Board. Changes should not be initiated until written IRB approval is received. Adverse events should be reported to the IRB as they occur. Further, should there be a need to extend this protocol, a renewal form must be submitted for approval at least one month prior to the anniversary date of the most recent approval and is the responsibility of the investigator (UCF).

Should you have any questions, please do not hesitate to call me at 407-823-2901.

Please accept our best wishes for the success of your endeavors.

Cordially,

Barbara Ward

Barbara Ward, CIM
IRB Coordinator

12443 Research Parkway • Suite 302 • Orlando, FL 32826-3252 • 407-823-3778 • Fax 407-823-3299

Revised 12/04

THE UNIVERSITY OF CENTRAL FLORIDA
INSTITUTIONAL REVIEW BOARD (IRB)

IRB Committee Approval Form

PRINCIPAL INVESTIGATOR(S): Marybeth Thomas **IRB #: 05-2386**

PROJECT TITLE: The Effects of Looping on Student Achievement and Self-Efficacy of Exceptional Education Students

[X] New project submission
[ ] Resubmission of lapsed project # _____
[ ] Continuing review of lapsed project # _____
[ ] Continuing review of # _____
[ ] Study expired _____
[ ] Initial submission was approved by expedited review
[ ] Initial submission was approved by full board review but continuing review can be expedited
[ ] Suspension of enrollment email sent to PI, entered on spreadsheet, administration notified _____

Chair
[^] Expedited Approval
Dated: 8 Feb 2005
Cite how qualifies for expedited review: #7

IRB Co-Chairs:
Signed: _____
Dr. Sophia Dziegielewski

[ ] Exempt
Dated: _____
Cite how qualifies for exempt status: _____

Signed: _____
Dr. Jacqueline Byers

[X] Expiration
Date: 7 Feb 2006

[ ] Waiver of documentation of consent approved
[ ] Waiver of consent approved

NOTES FROM IRB CHAIR (IF APPLICABLE): EXPEDITE REVIEW APPROVED WITH Clarifica

This study involves a vulnerable population. The methodology on the form is not clear but with inclusion of the consent forms it appears to qualify for expedited review. Prior to approval, however, methodology needs to be clear in regard to procedure. Researcher needs to clarify via e-mail that the self-efficacy scale is being added to the already Existing loop program. Also is the control group the same. FCAT scores are part of classroom requirements and special permission has been obtained to use them.

Teachers: Confirm that teachers are being invited to participate at the end of the study to complete a selfefficacy measur

For the most part it appears this informatio is here it is just not included on the Protocol form or in the procedures sector of the document provided.

SD ~~Consent~~ Assent form needs minor modification.

IRB Coordinator spoke with Marybeth on the phone 2/17/05 to explain these corrections needed. Email will still be sent to PI. BW

PI provided need revisions 2/18/05 BW

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